Witness Name: Thomas House
Statement No.: 1
Exhibits: TH
Dated: 11 March 2025

UK COVID-19 INQUIRY

WITNESS STATEMENT OF THOMAS HOUSE

I, Thomas House, will say as follows: -

Personal Details

1. I am a Professor of Mathematical Sciences at the University of Manchester, where I have worked since 2016. During the earlier part of the COVID-19 pandemic, my job title was Reader in Mathematical Statistics. I have worked professionally on mathematical models of infectious disease, as well as other related topics in mathematical sciences, since 2006.

2. During the COVID-19 pandemic, I contributed to the scientific response in various ways. I will structure my response to the Module 7 topics according to these different roles.

Contributions in Test, Trace and Isolate (TTI).

3. I was a participant in the SPI-MO modelling sub-committee of SAGE. The minutes of this committee have been compiled and made available as part of its secretariat's support for the inquiry and I have already provided a full list of the papers to which I contributed. As a participant, I also contributed to the consensus statements produced by this committee, which I believe are available to the inquiry. In particular, the paper **TH/01 [INQ000474921]** contained technical details of a

model of TTI that was used to inform these consensus statements, via various SPI-MO papers.

4. I was a co-investigator on the DHSC/UKRI COVID-19 Rapid Response Initiative funded project, "An analytical framework for Test, Trace and Isolate in the UK: optimising and targeting deployment alongside other measures." This project was led by Liz Fearon, then of LSHTM and now of UCL, who I believe has provided evidence directly to this module of the inquiry. The paper **TH/02 [INQ000474923]** was a product of this project, and showed that under reasonable assumptions regular asymptomatic testing with rapid tests like lateral flow devices (LFDs) could significantly reduce the total peak and overall impact of a COVID-19 wave.

5. In my personal capacity, and alongside collaborators, I contributed to opinion pieces **TH/03 [INQ000474925]** and TH/04 [INQ000474920]. These were part of a general debate in the scientific community about the use of rapid antigen tests / LFDs. Some opposed the use of these because they are less sensitive to the presence of virus than molecular techniques like PCR (Polymerase chain reaction). I think that one of the most important learnings from COVID for future pandemics is that such objections are misguided and rapid testing should form a key part of future response. The rapid tests provide quick information enabling people to break chains of transmission more quickly than laboratory tests, and are arguably more specific for levels of virus sufficient to cause infection.

6. I was an academic collaborator on the Office for National Statistics' COVID-19 Infectious Survey (CIS). One concern about the use of TTI for surveillance is that it requires people to request a test and we do not understand testing behaviour. The CIS used a random population sample that could be used inter alia for comparison with TTI surveillance and thereby infer the impacts of testing behaviour. I expect that others more senior in this study have been and are providing more detail to the inquiry.

7. I held a visiting position in the local NHS to provide modelling and analytical support. I was involved in discussions around TTI for NHS staff and patients but

not central to any of these. In general, I recall that modelling and analytics suggested that the approach to TTI adopted by the NHS was sensible.

Statement of Truth

I believe that the facts stated in this witness statement are true. I understand that proceedings may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief of its truth.

Signed: Personal Data T A House

Dated: 11 March 2025